

Before the  
**Federal Communications Commission**  
Washington, DC 20554

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**AUG 12 1999**

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**RM-9673**

In the matter of:

Proposed changes to Part 97.305 )  
of the Commission's Rules to limit )  
certain types of transmission )  
on prescribed portions of the )  
Amateur VHF and UHF bands )

**Reply Comments Offered by the  
William A. Tynan W3XO**

**Introduction**

I have been a licensed radio amateur since 1945, receiving the call letters W3KMY in 1946. I obtained my Extra class license in 1974 and in 1976 applied for and received the call letters, W3XO. I have long been primarily interested in the amateur bands above 50 MHZ and am currently operational on all bands from 50 MHZ through 1300 MHZ. From 1975 through 1992, I edited the QST column "The World Above 50 MHZ". I was one of the founders of the Radio Amateur Satellite Corporation (AMSAT) and served as its President from 1991 until last year. I am a Life Member of ARRL, AMSAT and a member of the Central States VHF Society (CSVHFS).

**Discussion**

The CSVHFS filed a petition with the Commission proposing Rule changes that would protect long haul weak signal work on the bands above 50 MHZ. In that petition, they express concern that such operation, vital to the continued contributions amateurs are making to the state of the radio communications art, are in jeopardy because of increasing encroachment by various kinds of wide band modes such as FM voice and packet into the small portions (less than 5 per-cent) of the bands where weak signal work customarily takes place.

A number of comments filed in support of the CSVHFS position have cited problems associated with wide band mode operation within the band limits proposed by the Society for exclusion of such modes. Among these are John Moore W5HUQ who recounted instances of being told by such operators that they were operating in accordance with FCC Rules and thus had a right to remain where they were and would do so. I have paraphrased the verbiage recited by Mr. Moore. Raphael Soifer W2RS also cited cases of interference on the 2 meter band in the New York City area by FM operators. So, while the problem might not yet be universal, it does exist and it is growing. The influx of new operators, most of whom have not been brought up in the tradition of amateur radio and belong to no organization, national or otherwise, can only exacerbate the problem.

A number of comments were files in opposition to the proposed rule change. One of these was by the American Radio relay League. The League, while expressing sympathy for the aims of the CSVHFS nevertheless argued that a change is rules is not necessary because bands plans and education can take care of the situation. ARRL Band plans have been published for years and have not solved the problem and cannot be expected to, especially in the light of the influx of new operators who do not

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belong to the League and may even be antagonistic toward it and its policies.

Additionally the ARRL band plans are hopelessly out of date and no effort has been made to revise them. Some of the League's band plans, which one can download from their Web site, include a statement that the plan for that band is "under review by the VUAC". The fact is that the League abolished the VHF/UHF Advisory Committee (VUAC) many years ago. It replaced it by something called the Spectrum Management Committee, which has also since been abolished.. It has been obvious for some time that the ARRL wishes to retire from function of promulgating band plans. While this might be wise course for them, I find it disingenuous of them to cite band plans as a solution to the problem raised by CSVHFS.

I laud the ARRL for their efforts in education. The lead editorial in the September 1999 of QST is a step in that direction. However, a majority of current licensed amateurs are not League members and thus do not receive QST. Obviously, something more is needed to reach those who are the most likely ones to not know where they should, and should not, operate their FM equipment, particularly those who don't care what the ARRL says or does. Unfortunately, there are too many such persons in amateur radio today. As a long-time ARRL Life Member, it disturbs me to acknowledge this fact.

Another organization commenting in opposition to the rule change was the Texas VHF FM Society (TXVHFFMS). Like the League, they express sympathy for the concerns expressed by CSVHFS but go on to argue against the Society's initiative. They agree that "weak signal experimentation is a area where amateur radio can and dose provide continuing innovation in communications technology". However they go on to claim that the CSVHFS contention that FM voice and data operation in the small portions of the bands in which CSVHFS proposes they be prohibited, has not been proven by CSVHFS. The Commission need only review the above two cited comments, and others, to conclude that TXVHFFMS is incorrect in this statement. One also wonders how an organization strictly limited to the borders of Texas, as large at the state is, can speak for the entire country. They say CSVHFS has not proven their case. I contend that TXVHFFMS has not proven theirs.

TXVHFFMS also claims that efforts on the part of CSVHFS to institute regulations to protect these small weak signal segments "flies in the face of history of amateur regulation over the past twenty years. Their statement continues as follows: "During that time the constant approach of the Commission has been to remove regulation from the amateur service, trusting instead in the proven record of self-regulation among licensees." That statement is patently untrue. While the Commission has gradually eliminated and changed regulations which do not bear on potential interference between amateurs or to other services, it has maintained essentially all of the regulations which do impact these important issues. Most of the Commission's de-regulation has been concerned with procedural matters such as the requirement to maintain station logs and to identify by "portable" or "mobile" when operating away from the home station location. The Commission has steadfastly not deregulated when it come to sub-bands for voice and other modes on the HF bands. All CSVHFS has asked for, and I support, is that the same concept be extended to less than 5 per-cent of the bands from 50 to 450 MHZ.

TXVHFFMS also claims that "the Commission has repeatedly held that operating in a manner inconsistent with published band plans is not good amateur practice and therefore in violation of paragraph 97.101(a) of the Rules. How can that be true when the "published band plans" are so far out of date and no effort appears to be underway to change that? In its next sentence, TXVHFFMS contends that "This position has served the amateur community well, and is all of the basis needed to support sanctions against any amateur who operates in a manner that interferes with weak signal

work.” This contention is completely false. If it were true, at least a few of the recent Commission enforcement actions would have been against transgressors of the kind cited by W2RS and W5HUQ. I have not read of any such actions and I doubt seriously if the Commission would be willing to bring forth any UNDER ITS CURRENT RULES, especially in light of the condition of presently published band plans. I suspect that any such Commission action would prompt legal action against the Commission and that the Commission is well aware of that possibility.

Furthermore, since the TXVHFFMS is primarily a repeater coordinating body, and a very good one I might add, I am at a loss to understand why they commented on this proceeding. What CSVHFS has asked for is protection from casual, and sometimes intentionally disruptive operators who operate wide band equipment in a very small portion of the VHF/UHF bands. Such operation has nothing to do with repeaters. One can only wonder what TXVHFFMS might have in mind for the future. If the Commission should decide to make the changes in the Rules proposed by CSVHFS and supported by me and many other weak signal operators who have taken the trouble to comment, nothing that TXVHFFMS currently does would be affected in any way. One can only conclude, therefore that they are attempting to prevent Rule changes which might hamper future expansion of FM operation, such as remote bases or packet nodes, into the bands proposed by CSVHFS to be free of such activity.

Another organization commenting in opposition to the CSVHFS proposal was the 220 Spectrum Management Association (220SMA) of southern California. 220SMA's main contention appears to be that band planning should be local. Therefore they appear to reject the ARRL band plans at least the one that applies to the 222 - 225 MHz band. Indeed, they cite the existence in their area of “3 FM simplex channels plus 1 packet channel. in the 222.0 - 222.150 MHz portion of the band. This is in direct contravention of the ARRL band plan for the 222 - 225 MHz band which calls for 222.0 - 222.150 to be for “Weak-signal modes”. The League plan goes on to delineate specific segments for EME, beacons SSB etc. Is the Commission about to bring action against the operators of FM equipment in southern California in contravention of THE published band plan? I doubt it.

Like many others opposing the CSVHFS proposal, 220SMA is proceeding from the premise that the VHF and UHF bands are local in nature. That is probably true for the modes they espouse. But it is not true for weak signal modes. For example, from my location in central Texas, W3XO/5 (I still put the /5 in even though de-regulation eliminated that requirement years ago.) has worked both coasts on the 2 meter band. Most of the time, I was running 150 Watts. I have also contacted stations in Florida on the 222 MHz band the 70 cm band and the 23 cm band. On 1.25 meters and 70cm, I have never run more than 100 Watts and on 23 cm I run 10 Watts. On 6 meters, I have achieved DXCC, working more than one- hundred countries. The point I am trying to make is that, using modes in which very weak signals can be utilized, great distances can be covered even with moderate or low power. These bands are not local and local option band planning should not be allowed to interfere with operation by those willing to spend a great deal of time, money and effort building efficient stations capable of taking advantage of propagation phenomena which go unnoticed by those operating wide band, modes, usually with very poor antenna systems. Yes, for them, these bands are local. But, because of their wide bandwidth and potentially large numbers, they can make weak signal work impossible. That is why they must be kept out of the small portions of these bands that have been rendered regional and even worldwide by those who go to extra effort in the construction and operation of effective stations. They are kept out of the bands below 29 MHz, why not the small segments proposed by CSVHFS? Why is it too much to ask that 5 per-cent of the 6 meter, 2 meter 1.25 meter and 2.3 per-cent of the 70 cm band be set aside for low bandwidth modes, when on HF, 81.8 per-cent of the spectrum between 1.8 MHz and 29.7 MHz is set aside for low bandwidth

modes. Only on 18.2 per-cent of it (29.0 - 29.7 MHz) is wide band FM allowed. Why should those who go to the most trouble and expense in building their stations for the VHF and UHF bands not be afforded similar protection as those on the HF bands? CSVHFS did not ask for 81.8 per-cent, merely 5 per-cent on the available spectrum on 6, 2 and 1.25 meters and less than half of that on 70 cm.

Another fault I find with the 220SMA filing is their statement that their membership includes weak signal and EME operators. If this is true, it is very questionable if any such individuals were consulted with respect to the wording of their filing, or if any such persons were present at the meeting at which they voted "unanimously" to file in opposition to the CSVHFS proposal. By making the statement with respect to the inclusion of weak signal and EME operators among their membership, 220SMA is attempting to convey to the Commission the impression that those persons support the 220SMA position on this matter. This, I believe to be misleading at best and untrue at worst. If anything in their statement is untrue, I would assert they may be guilty of violation of Federal Law, making false statements to a Government agency.

The 220SMA filing cites the location of the CSVHFS as Kerrville, Texas. This demonstrates they haven't done their "homework". The CSVHFS is incorporated in the state of Missouri.

One must wonder why organizations like TXVHFFMS and 220SMA feel called upon to oppose such a moderate request. One can only conclude they want it ALL! This is the best argument I can think of for instituting the RM.

Another commenter, was No-code International (NCI). They seem to be intent on eliminating essentially all regulation. They make a particular point of stating that regulation in support of a "minority" seems out of place, or words to that effect. I perceive that we have, in this country, many laws and regulations designed to protect the rights of minorities.

NCI also casts aspersions at what they perceive 'weak signal' people do, for example engaging in contests. In my opinion such categorization represents a value judgement on their part and should be rejected. They also seem to believe that all wave propagation modes are now "well understood". Perhaps they can tell me then what causes Sporadic E. I doubt if they even know what it is, much less its cause. They also cite band plans as the panacea for solving the problem raised by CSVHFS. I don't think it necessary to re-visit that argument which I have already shown to be discredited.

NCI in an apparent effort to demonstrate to the Commission that they know something, quote Shannon. I need not remind the Commission that Shannon's work dealt principally with transmitting large amounts of data, usually over relatively short distances. Yes, it can also be applied to low data rate narrow band modes capable of covering relatively great distances. There is no conflict here. Narrow band does not necessarily mean conventional Morse CW or voice SSB. Other narrow band modes may very well prove valuable over long paths at VHF and UHF. The weak signal community will certainly make use of such techniques when and if they prove useful, if the very weak signals they are trying to receive are not obliterated by hoards of low efficiency wide band signals occupying the tiny slices of spectrum customarily used for weak signal work. The NCI ploy of throwing Shannon at the Commission is merely a tactic meant to confuse the issue, and should be ignored completely.

An individual commenting in opposition to the CSVHFS proposal is Timothy J. Salo AB0DO. He goes to great length to outline all the things amateur radio can do to further wireless communication. It is quite apparent he is referring to relatively short range communication. Nevertheless, his view of

what amateurs are doing and hope to do in the future is quite laudable. I hope and trust that amateurs can play a significant role in such short range wide band communication. However, he, like 220SMA and TXVHFFMS seem to be arguing that such activity should have it ALL! As I have already stated, it is just such arguments that gives validity to the CSVHFS fear of wide band modes completely taking over all the VHF and UHF bands. I contend, that with the minuscule amount of spectrum for which CSVHFS is asking protection, experimentation and development of these wideband modes will have ample room in which grow and prosper. If one considers the vast space above 902 MHZ, which the CSVHFS petition does not address, the percentage bandwidth for which Rule revision is sought is diminishingly small. In any case, many of the modes alluded to by NCI, Mr. Salo and others can best be accomplished in the microwave spectrum which was not addressed by CSVHFS. Thus, all of the comments that say that the Rule change proposed by CSVHFS will inhibit further experimentation are absolutely false and should be rejected as such.

Thank you for your careful consideration of this important matter.

Respectfully submitted,

Original signed by



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